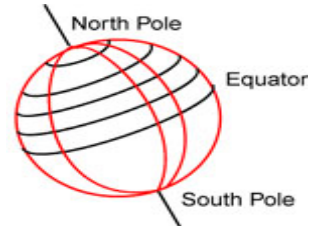


# Latitude & Longitude

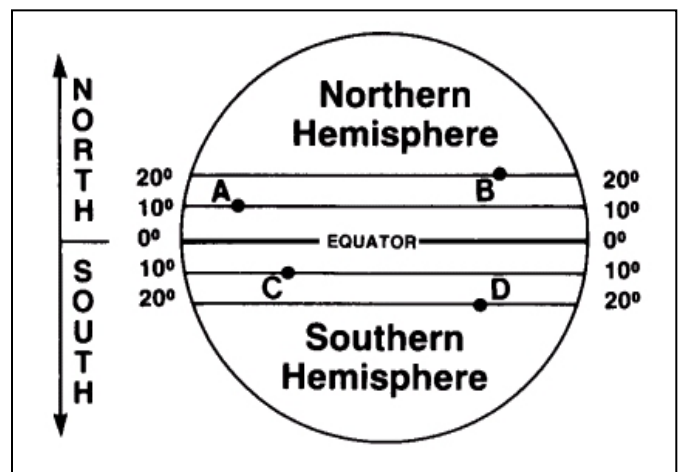
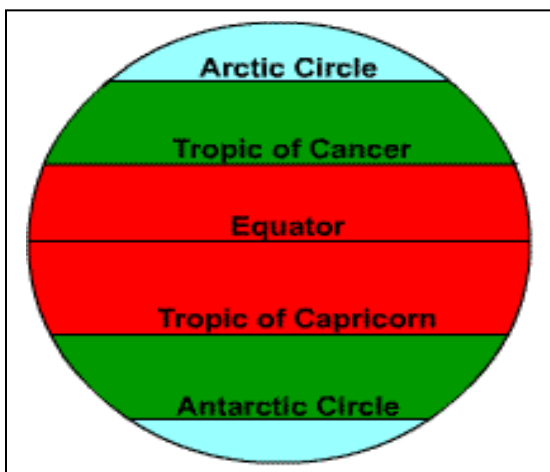


If the Earth were flat, rectangular coordinates  $(x,y)$  would be sufficient to describe the locations of points on its surface. However, Earth is a sphere with no sides, and a special frame of reference is needed. The poles of Earth provide this reference frame.

## Lines of Latitude

**EQUATOR** – an imaginary line that divides the Earth into 2 equal parts (Northern & Southern hemispheres)

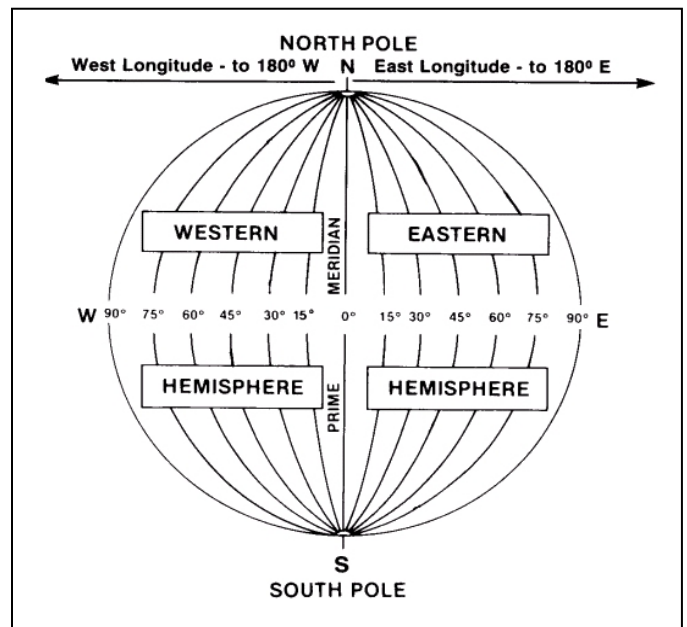
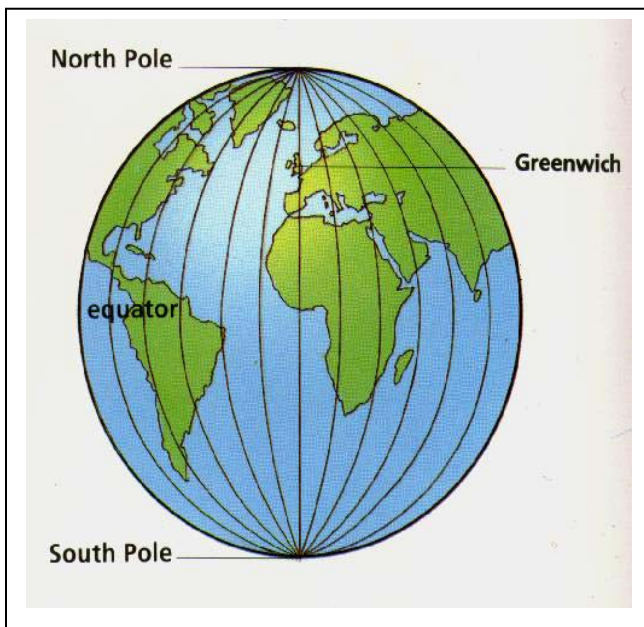
- Are imaginary lines
- The Equator is the starting point for latitude lines
- Measure the distance North & South of the Equator
- Lines are drawn around the Earth, parallel to the Equator
- Lines never intersect each other
- Lines are approximately 111 km apart
- Lines are used as political boundaries



## Lines of Longitude

**PRIME MERIDIAN** – an imaginary line that divides the Earth into 2 equal parts (Eastern & Western hemispheres)

- Are imaginary lines
- The Prime Meridian is the starting point for longitude lines
- The **International Date Line** is the 180° meridian
- **Measure the distance East and West of the Prime Meridian**
- Lines are drawn from the North Pole to the South Pole
- Lines converge at the poles and are furthest apart at the Equator
- Longitude lines are longer than latitude lines
- Lines are used to determine time zones



**ABSOLUTE LOCATION** – the location of a point on the Earth using latitude and longitude lines

Using the latitude & longitude grid we can pinpoint any place on the Earth. This location is specified by a series of numbers

degrees minutes seconds      44 25 14 N